

## ABSTRACT OF THE DISCLOSURE

A flame retarding polypropylene fiber and flame retarding polypropylene film having both good flame retardancy and good fiber strength and film strength, and generating no toxic gas, and a production method thereof are provided. 0.5 to 3.0 % by weight of a NOR type hindered amine-based stabilizer and 0.5 to 3.0 % by weight of a phosphoric ester-based flame retardant are mixed with a polypropylene resin having a melt flow rate value of 5 to 50 g/10min., the mixture is spun to form an unstretched yarn, and then the yarn is stretched at a stretching magnification of 2 to 7-fold and a stretching temperature of 50 to 100 °C, and further set thermally at a temperature of 60 to 140 °C. Since the flame retarding polypropylene fiber obtained contains the above-mentioned range of the NOR type hindered amine-based stabilizer and the phosphoric ester-based flame retardant, it has both adequate fiber strength and good flame retardancy. And a flame retardant polypropylene film containing the above-mentioned range of the NOR type hindered amine-based stabilizer and the phosphoric ester-based flame retardant has strength and flame retardant property as well.